



# Los Alamos National Laboratory Applied Machine Learning Summer Research Internship

*Creates next-generation leaders in  
Machine Learning for Scientific Applications*

The Applied Machine Learning Summer Research Internship is an intense 10-week program aimed at providing graduate students with a solid foundation in modern machine learning (ML) through applications in geophysics, grid science, cancer genomics, and materials science. This is a paid position that may also include reimbursement for approved travel expenses.

## Description

Students will learn hands-on by engaging in scientific research using machine learning. Research will be performed in small collaborations, guided by mentors with scientific and computational expertise.

The program will begin with a one-week crash course on machine learning techniques relevant to the internship projects. Topics include supervised and unsupervised learning, deep learning architectures, state-of-the-art ML software packages, and data visualization / interpretation.

Students will work on high performance computing clusters, apply practical ML tools, and gain experience in communicating their work through posters and oral presentations. We aim for high-impact summer projects that will lead to peer-reviewed, co-authored publications.

## Students

This multi-disciplinary program is designed for graduate students from all STEM fields who are seeking to incorporate machine learning into their research careers. As a general guideline, students should have a background in one of the following: probability theory, statistical methods, algorithms, or statistical learning. Experience with ML packages such as scikit-learn, Theano, Torch, or TensorFlow is especially encouraged.

## Duration & Location

The program will last ten weeks, June 6 through August 11, 2017, and will be held at Los Alamos National Laboratory. Students must be available to live and work in Los Alamos, New Mexico.

## Application Process

To apply, please submit:

- Current resume
- Official university transcript (with Spring courses and/or copy of Spring 2017 schedule)
- Graduate 3.2 GPA minimum
- Letter of recommendation from a faculty member
- Letter of intent stating strengths, goals, interests, and how the AML internship will help you achieve your goals

Application materials should be sent to [aml17@lanl.gov](mailto:aml17@lanl.gov) by January 15, 2017. Apply now!